## **Location and Outpatient Psychiatric Care**

ALLEN HODGES, Ph.D., and HERBERT DÖRKEN, Ph.D.

I N 1954-55, 93 percent of the professional services in Minnesota's outpatient psychiatric clinics were concentrated in metropolitan areas, and only 7 percent were provided for the 55.7 percent of the State's population residing in nonmetropolitan areas (1). Today, less than 3 years after passage of the Minnesota Community Mental Health Services Act of 1957, outpatient psychiatric care is available to 45 percent of all State residents within their own communities. As provided in the act, more than half of Minnesota's 87 counties have received State grants-in-aid to establish local mental health centers (2-4).

In the evolving Minnesota community mental health program, 12 rural mental health centers serving 45 counties have been approved for State grants-in-aid. These centers serve populations ranging from approximately 116,000 to slightly less than 50,000 residents, and 10 are multicounty units serving from three to eight counties. The distance by road from a center to the farthest village within its service area ranges from 21 to 129 miles, with 47 miles the median distance.

These facts illustrate a persistent problem in planning for outpatient mental health facilities: delineation of the geographic area which one center can serve adequately. While guidelines have established the size of the population best served by a full-time mental health team of psychiatrist, psychologist, and social worker, the literature reveals no suggestion of the opti-

Dr. Hodges is director of school psychology training at the University of Minnesota. Dr. Dörken is director of community mental health services, Minnesota State Department of Public Welfare. This paper was presented at a workshop held in Minneapolis in February 1960, for staff and board members of mental health centers in Minnesota. mum geographic area to be served by either the rural or the urban treatment center.

Altman's study (5) of distances traveled for care from general practitioners and medical specialists in western Pennsylvania during 1950-51 offers relevant information, though psychiatric care is not among the categories of medical specialization for which the study presents specific data. For patients who resided in eight counties adjacent to medium-sized metropolitan areas and who used the services of specialists, Altman showed that 59.4 percent lived within 5 miles, while only 11 percent traveled more than 40 miles for care. For the 27 counties constituting the total studied, he showed a negative relation of 0.74 between average distance traveled and frequency with which specialists' services were obtained. Similarly, the mental health center at Crookston, Minn., reported for 1958-59 a negative relation of 0.79 between utilization and distance. This statistic, like Altman's, does not take into account those persons who failed to obtain services because of the distances involved.

## Distances Traveled in Minnesota

Between 1950 and late 1959, two State-supported rural mental health centers, one in the town of Albert Lea and the other in Fergus Falls, provided service to any State resident referred by a licensed physician. During that decade, the urban treatment center in Duluth also accepted referrals from many points throughout the State. The accompanying table indicates the distances from these three outpatient mental health centers to the residence of patients who obtained clinic services between July 1, 1957, and June 30, 1959.

The figures shown in the table for the 12 months from July 1957 through June 1958 are

based on exact determination of the distance from the patient's residence to the center providing him service, but the 1958–59 figures represent an approximation of distances traveled. Since 1958–59 patients were tabulated merely by county of residence, for that year we have used mileage from the mental health center to the county seat (also the center of county population) in the patient's county of residence as the basis for distribution.

Two other factors impinge on the data presented in the table. While the 1957–58 figures represent patients terminating outpatient treatment during the year, the 1958-59 figures were drawn from a different source (6) and represent active cases (pending cases seen within 90 days). That the number of active cases is greater than the number terminated, under ordinary circumstances, is reflected in the substantially larger number of patients shown at each center for 1958-59. Second, while staff was fairly stable at both Albert Lea and Fergus Falls over the 2-year period, some expansion occurred at Duluth during 1958-59. Also, new centers were opened during the second year under the community mental health services program (4,7). The center at Crookston may have absorbed some patients from the northwest section of the State who might otherwise have been referred to Fergus Falls, 125 miles away. Likewise, the opening of centers at Rochester and Austin, within a 60-mile radius of Albert Lea, probably reduced referrals to the older center from the area south and east of the Twin Cities. Despite these complications in comparability, the data suggest distance as a definite factor in the utilization of outpatient mental health services.

At the Albert Lea center, 42.2 percent of the patients terminated in 1957–58 lived in the town of Albert Lea (population 13,000); in the following year, 52.7 percent of the active patients lived in Freeborn County (population 36,000), where the town is situated. Eighty percent or more of the patients seen in either year resided within 60 miles of the center. This clinic, formerly State operated, enjoyed strong community support from the outset and has now been converted to a community mental health center serving a two-county region which extends no farther than 42 miles from the center in any direction.

Substantially fewer patients seen at the clinic in Fergus Falls came from the town or its nearby surroundings. Like the center in Albert Lea, the one in Fergus Falls was in a small city (population 13,300) situated in a county (Otter Tail) of less than 50,000 resi-

Miles from center	Albert Lea center				Fergus Falls center				Duluth center			
	1957–58 <sup>1</sup>		1958–59 <sup>2</sup>		1957–58 <sup>1</sup>		1958–59 <sup>2</sup>		1957–58 <sup>1</sup>		1958–59 <sup>2</sup>	
	Num- ber of pa- tients	Cum- ula- tive per- cent	Num- ber of pa- tients	Cum- ula- tive per- cent	Num- ber of pa- tients	Cum- ula- tive per- cent	Num- ber of pa- tients	Cum- ula- tive per- cent	Num- ber of pa- tients	Cum- ula- tive per- cent	Num- ber of pa- tients	Cum- ula- tive per- cent
0_ 1-20_ 21-40_ 41-60_ 61-80_ 81-100_ 101-140_ 141 and over_	$ \begin{array}{c c} 64 \\ 58 \\ 21 \\ 33 \end{array} $	42. 2 52. 1 66. 9 80. 4 85. 3 93. 0 97. 9 100. 0	$     \begin{array}{r}       394 \\       60 \\       130 \\       81 \\       22 \\       34 \\       15 \\       12     \end{array} $	52. 7 60. 7 78. 1 88. 9 91. 8 96. 3 98. 3 100. 0	$     53 \\     10 \\     54 \\     119 \\     40 \\     30 \\     80 \\     14   $	$\begin{array}{c} 13. \ 2\\ 15. \ 8\\ 29. \ 2\\ 59. \ 0\\ 69. \ 0\\ 76. \ 5\\ 96. \ 5\\ 100. \ 0\end{array}$	$     \begin{array}{r}       177 \\       0 \\       75 \\       168 \\       43 \\       45 \\       42 \\       14 \\       \end{array} $	$\begin{array}{c} 31. \ 4\\ 31. \ 4\\ 44. \ 7\\ 74. \ 5\\ 82. \ 1\\ 90. \ 1\\ 97. \ 5\\ 100. \ 0 \end{array}$	$     \begin{array}{r}       179 \\       4 \\       12 \\       2 \\       8 \\       8 \\       3 \\       1     \end{array} $	82. 5 84. 3 89. 9 90. 7 94. 4 98. 1 99. 5 100. 0	$ \begin{array}{r} 514\\ 21\\ 20\\ 0\\ 0\\ 17\\ 5\\ 6\end{array} $	88. 2 91. 8 95. 2 95. 2 95. 2 95. 2 98. 1 99. 0 100. 0
Total	431		748		400		564		217		583	

Distance from three Minnesota mental health centers of patients obtaining clinical services, 1957-59

<sup>1</sup> Comprises patients terminating outpatient treatment in the 12-month period, distributed according to mileage from patient's actual residence to mental health center.

<sup>2</sup> Comprises active patients in the 12-month period, distributed according to mileage from mental health center to county seat in patient's county of residence.

dents. Largely because of its initial location, however, the circumstances in which the Fergus Falls clinic operated during its early years were very different from those in Albert Lea. It was originally set up as an outpatient clinic at the Fergus Falls State Hospital, a large hospital for mental patients. Local resistance to using the clinic at that location was so strong that it was eventually moved to an office building in the center of town. Though patients continued to come primarily from out of town, the clinic was more effectively utilized after its relocation. Three-fourths of the patients terminated in 1957-58 lived within 100 miles; in the next year, probably because of the opening of the Crookston and Willmar centers, three-fourths of the active patients lived within 60 miles of the clinic.

The treatment center at Duluth was established with strong support from within the municipality. This city of approximately 105,000 is in St. Louis County, which, with its 230,000 residents, is one of Minnesota's most populous. During 1957-58, more than 80 percent of clinic patients terminated during the year resided in the city, and the proportion who were Duluth residents remained high the following year (76.3 percent of patients active on June 30, 1959, plus patients accepted through January 31, 1960). Some cases from an adjacent county were seen, but there was relatively little demand for service even from the remainder of St. Louis County in either of the 2 years.

Qualitative analysis suggests other interesting differences in utilization as related to distance. Patients coming from long distances tend to exhibit severe mental disorders, including acute psychotic conditions, relatively often. Crookston, for example, serving an eightcounty region in northwest Minnesota, reported psychotic disorders in more than 35 percent of the adults seen at the center in 1958–59, whereas at Duluth the proportion of such patients was only 8.3 percent for the same year (6). Apparently, many patients do not travel extended distances except in emergencies.

## Conclusions

The distance patients must travel to obtain service appears to be a significant factor in the use of outpatient psychiatric care. Forty to sixty miles, the rough equivalent of 1 hour's drive by car, seems to be the practical limit in rural areas. At greater distances, proper utilization of facilities is impeded and the type of referral is adversely affected by the tendency to postpone or forego treatment of less than severe disorders. Nor does the facility situated in a major urban center always provide the service to surrounding rural areas that may be supposed.

The precise location of outpatient mental health services can also influence use, with the first location of the clinic in Fergus Falls, Minn., a case in point.

Distances and location thus constitute important factors to consider, along with population, in the organization and establishment of community mental health services. When community services as distinguished from clinical services—for example, consultation to agencies, provision of inservice training programs, and education of the public—are to be major aspects of a program, distance and location become even more important considerations in planning.

## REFERENCES

- Bahn, A. K., and Norman, V. B.: Characteristics and professional staff of outpatient psychiatric clinics. PHS Pub. No. 538 (Public Health Monogr. No. 49). Washington, D.C., U.S. Government Printing Office, 1957, 87 pp.
- (2) Minnesota Department of Health: Twenty-three mental health clinics in operation in State. Mental Health Progress 2: 1-3, January 1960.
- (3) Dörken, H.: Minnesota's progressive community mental health services. Ment. Hyg. 44: 442–444, July 1960.
- (4) Minnesota State Department of Public Welfare: Minnesota community mental health services. St. Paul, Minn., 1960, 29 pp.
- (5) Altman, I.: Medical service areas and distances traveled for physician care in western Pennsylvania. II. Distances traveled for physician care in western Pennsylvania. PHS Pub. No. 248 (Public Health Monogr. No. 19). Washington, D.C., U.S. Government Printing Office, 1954, pp. 21-32.
- (6) Minnesota State Department of Public Welfare: Minnesota outpatient psychiatric clinics, 1958-59. St. Paul, Minn.
- (7) Hodges, A., and Cameron, D. C.: Minnesota's community mental health services. Ment. Hyg. 43: 111–114, January 1959.